CLAIMS:

1. A computed tomography method which includes the steps of

a) generating, while using a radiation source, a conical radiation beam which traverses an examination zone or an object present therein,

b) generating a circular relative motion, including a rotation about an axis of rotation, between the radiation source on the one side and the examination zone or the object on the other side,

c) acquiring, while using a detector unit, measuring values which are dependent on the intensity in the radiation beam to the other side of the examination zone during the relative motion,

d) rebinning the measuring values so as to form a number of groups, each group containing the measuring values of fan beams which are situated in equidistant fan beam planes which extend parallel to one another and to the axis of rotation and are composed of rays which traverse a plane which contains the axis of rotation and extends perpendicularly to the fan beam planes of this group in puncture points which are situated on equidistant connecting lines which extend perpendicularly to the axis of rotation and parallel to one another,

e) reconstructing the spatial distribution of the attenuation of the X-rays from the measuring data, formed by the rebinning of the measuring values, for rays which extend perpendicularly to the planes of the groups and through the puncture points so as to form at least one CT image.

2. A computed tomography method as claimed in claim 1, in which the reconstruction step consists of the following steps:

a) one-dimensional filtering of the measuring data, formed by the rebinning operation, of each group in the direction of the connecting line,

b) backprojecting the filtered data of a plurality of groups.

3. A computed tomography method as claimed in claim 1, in which the reconstruction step includes an inverse Fourier transformation.

4. The use of the method claimed in claim 1 for CT fluoroscopy, in which continuous acquisition of measuring values for further CT images takes place while CT images are continuously being reconstructed.

5. A computed tomography apparatus for carrying out the method claimed in claim 1, which apparatus includes

a) a radiation source for generating a conical radiation beam which traverses an examination zone or an object present therein,

b) a drive device for realizing a circular relative motion, including a rotation about an axis of rotation, between the radiation source on the one side and the examination zone or the object on the other side,

c) a detector unit for the acquisition of measuring values, during the relative motion, which measuring values are dependent on the intensity in the radiation beam to the other side of the examination zone,

and also includes an image processing unit for generating at least one CT image from the measuring values by means of the steps of:

d) rebinning the measuring values so as to form a number of groups, each group containing the measuring values of fan beams which are situated in equidistant fan beam planes which extend parallel to one another and to the axis of rotation and are composed of rays which traverse a plane which contains the axis of rotation and extends perpendicularly to the fan beam planes of this group in puncture points which are situated on equidistant connecting lines which extend perpendicularly to the axis of rotation and parallel to one another,

e) reconstructing the spatial distribution of the attenuation of the X-rays from the measuring data, formed by the rebinning of the measuring values, for rays which extend perpendicularly to the planes of the groups and through the puncture points so as to form at least one CT image.

6. A computer program for controlling a computed tomography apparatus as claimed in claim 5 as follows:

a) generating, while using a radiation source, a conical radiation beam which traverses an examination zone or an object present therein,

b) generating a circular relative motion, including a rotation about an axis of rotation, between the radiation source on the one side and the examination zone or the object on the other side,

c) acquiring, while using a detector unit, measuring values which are dependent on the intensity in the radiation beam to the other side of the examination zone during the relative motion,

d) rebinning the measuring values so as to form a number of groups, each group containing the measuring values of fan beams which are situated in equidistant fan beam planes which extend parallel to one another and to the axis of rotation and are composed of rays which traverse a plane which contains the axis of rotation and extends perpendicularly to the fan beam planes of this group in puncture points which are situated on equidistant connecting lines which extend perpendicularly to the axis of rotation and parallel to one another,

e) reconstructing the spatial distribution of the attenuation of the X-rays from the measuring data, formed by the rebinning of the measuring values, for rays which extend perpendicularly to the planes of the groups and through the puncture points so as to form at least one CT image.